IN THE CLAIMS

Please replace the claims in the present application with the following listing of claims:

1. (currently amended) A frequency domain interpolative CODEC system for low bit rate coding of speech, comprising:

a linear prediction (LP) front end adapted to process an input signal providing LP parameters which are quantized and encoded over predetermined intervals and used to compute a LP residual signal;

an open loop pitch estimator adapted to process said LP residual signal, a pitch quantizer, and a pitch interpolator ~~and~~ adapted to provide a pitch contour within the predetermined intervals;

~~a voice activity detector adapted to process said LP parameters and said open loop pitch contour over said predetermined intervals;~~ and

a signal processor responsive to said LP residual signal and the pitch contour and adapted to perform the following:

extract a prototype waveform (PW) from the LP residual and the open loop pitch contour for a number of equal sub-intervals within the predetermined intervals;

normalize the PW by said PW's gain;

~~encode a magnitude of said PW; and~~

~~provide a voicing measure, said voicing measure characterizing a degree of voicing of said input speech signal and is derived from several input parameters that are correlated to degrees of periodicity of the signal over the predetermined intervals, said voicing measure being provided for the purpose of:~~

~~regenerating a PW phase at a decoder; and~~

~~providing improved quantization of the PW magnitude at an encoder~~

extract measures of periodicity from the normalized PW that are correlated to degrees of periodicity over each predetermined interval;

extract measures of periodicity from open loop parameters derived from the input signal that are correlated to degrees of periodicity over each predetermined interval; and

provide an overall voicing measure for each predetermined interval, said voicing measure characterizing a degree of voicing of said input signal, by combining the measures of periodicity extracted from the open loop parameters and the measures of periodicity extracted from the normalized PW over the predetermined intervals.

2-4. (canceled)

5. (currently amended) A system as recited in claim 1, wherein ~~said voicing measure is encoded jointly with a PW nonstationarity measure using a spectrally weighted vector quantizer with a codebook partitioned based on a voiced/unvoiced mode~~ the measures of periodicity extracted from the normalized PW include a measure of average PW correlation across the predetermined intervals.

6. (canceled)

7. (new) A system as recited in claim 1, wherein the measures of periodicity extracted from the normalized PW include a measure of PW non-stationarity across low frequencies and across the predetermined intervals.

8. (new) A system as recited in claim 1, wherein the measures of periodicity extracted from the open loop parameters include an open loop pitch gain.

9. (new) A system as recited in claim 1, wherein the measures of periodicity extracted from the open loop parameters include an open loop pitch variance.

10. (new) A system as recited in claim 1, wherein the measures of periodicity extracted from the open loop parameters include input signal relative power.

11. (new) A system as recited in claim 1, wherein the measures of periodicity extracted from the open loop parameters include a first reflection coefficient of the LP residual signal.

12. (new) A system as recited in claim 1, wherein the measures of periodicity are mapped using non-linear transformations to a normalized range, and wherein the overall voicing measure is computed as a weighted sum of the mapped measures of periodicity and a voicing measure of a previous interval.

13. (new) A system as recited in claim 1, wherein an overall voicing classification is derived from the overall voicing measure.

14. (new) A system as recited in claim 12, wherein an overall voicing classification is derived based upon whether the overall voicing measure is within a predetermined range.